

ABSTRACT

Edges are detected in block coded video by a threshold comparison upon the lengths of variable-length codes used for encoding the differential DC coefficients of the pixel blocks. A thinning filter compares the code lengths of the differential DC coefficients of adjacent blocks in order to retain the edge indications of more significant edges and to exclude the edge indications of less significant edges. The edge indications can be split into substantially independent channels for luminance or chrominance, for edges having positive or negative horizontal gradient components, and for edges having positive or negative vertical gradient components. The edge indications for successive frames in an MPEG sequence are compared to each other in various ways in order to detect scene changes.